

direction to the longitudinal axis with intervals, and said geometrical patterns being formed by several markings that are regularly repeated in the direction of the longitudinal axis.

23. (Twice Amended)

Insulation material sheet as defined in claim 2 wherein said markings are formed by lines or geometrical patterns, said geometrical patterns being arranged in a transverse direction to the longitudinal axis with intervals, and said geometrical patterns being formed by several markings that are regularly repeated in the direction of the longitudinal axis.

24. (Twice Amended)

Insulation material sheet as defined in claim 8 wherein said markings are formed by lines or geometrical patterns, said geometrical patterns being arranged in a transverse direction to the longitudinal axis with intervals, and said geometrical patterns being formed by several markings that are regularly repeated in the direction of the longitudinal axis.

25. (Twice Amended)

Insulation material sheet as defined in claim 9 wherein said markings are formed by lines or geometrical patterns, said geometrical patterns being arranged in a transverse direction to the longitudinal axis with intervals, and said geometrical patterns being formed by several markings that are regularly repeated in the direction of the longitudinal axis.

REMARKS

Receipt of the Office Action of July 25, 2002, is acknowledged. The foregoing amendments and following comments are believed to be fully responsive to that Office Action. Claims 1, 2, and 8-25 are pending in the application. All of these claims have been amended herein. The amendments to these claims are highlighted on the attached sheet entitled: "Version With Markings To Show Changes Made."

Claims 1, 2, and 8-25 were objected to for containing the informal phrase "characterized". This phrase has either been removed or replaced with the term "wherein," as suggested by the Examiner. Accordingly, these objections should be withdrawn.

Claims 1, 2, and 8-25 were rejected under 35 U.S.C. §112, second paragraph for allegedly being indefinite. These rejections were based on two phrases that appeared in claims 1 and/or 2. All of these limitations have been amended to clarify their meaning. Applicants submit that the amended language does not suffer from any of the ambiguities

raised by the Examiner in the last Office Action, or any new ambiguities. Accordingly, the rejection of claims 1, 2, and 8-25 for alleged indefiniteness should be withdrawn.

Claims 1, 2, and 8-25 were rejected for allegedly being anticipated by European Patent 795424 A1. All of the pending claims were also rejected for allegedly being obvious in light of U.S. Patent No. 4,866,905. Further, all of the pending claims were rejected for allegedly being obvious over German Patent DE 371 3108 A. With respect to all of these rejections, the Examiner attributed no patentable weight to the limitations regarding the graphically marked designs on the surface of the claimed mineral wool sheet. While the Examiner did not specify why no weight was given these limitations, Applicants assume that the Examiner contended that these limitations related to unpatentable printed matter. See MPEP §706.03A. Applicants note, however, that the printed matter rejection is not applicable here. Applicants are not merely claiming printed matter. Rather, they are claiming the combination of a sheet of insulation and certain markings arranged thereon. This does not subject the claims to a printed matter rejection.

The printed matter rejection is not applicable here for the same reasons discussed in *In re Miller*, 164 USPQ 46 (CCPA 1969). In that case, the court stated as follows:

As for the examiner's characterization of the indicia and legend as "unpatentable printed matter," we note that the examiner himself recognized the fact that printed matter, in an article of manufacture claim, *can* be given "patentable weight." He did so in allowing claims. His characterization of printed matter as "unpatentable" is beside the point; no attempt is here being made to patent printed matter as such. The fact that printed matter by *itself* is not patentable subject matter, because non-statutory, is no reason for ignoring it when the claim is directed to a combination. Here is a new and unobvious functional relationship between a measuring *receptacle*, volumetric *indicia* thereon indicating volume in a certain ratio to actual volume, and a *legend* indicating the ratio, and in our judgment the appealed claims properly define this relationship.

As noted above, the present application is directly analogous to the situation in *In re Miller*. Specifically, the present application is directed to a combination of items, not simply printed matter. For all of the foregoing reasons, Applicants submit that patentable weight must be given to the limitations in the claims that relate to the markings.

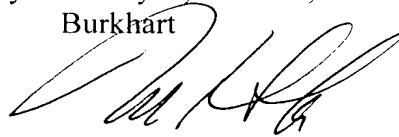
When patentable weight is attributed to the limitations of the claims relating to the arrangement of the markings, it is clear that none of the three references cited by the Examiner disclose or suggest all of the claim limitations. Specifically, none of the three references disclose or suggest plane formations. Likewise, none of the three references cited

by the Examiner disclose or suggest markings that are oriented non-perpendicularly to the longitudinal extent of the insulation sheet. With respect to independent claim 2, none of the three references cited by the Examiner disclose crosses as markings. Rather, all of the references cited by the Examiner disclose markings that are strictly perpendicular to the longitudinal axis of the sheet material. For these reasons, Applicants submit that the rejections of all the claims should be withdrawn.

Respectfully submitted,

SAINT-GOBAIN ISOVER
LES MIROIRS

By: Van Dyke, Gardner, Linn &
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Version With Markings To Show Changes Made

-1- (Amended)

A rollable, mineral wool, insulation material sheet for insulation of roofs, said insulation material sheet having ~~Insulation material sheet which may be wound up to a roll, out of mineral wool for insulation of roofs, which is provided with~~ markings distributed over the a length of said insulation material sheet, which facilitate cutting-off of insulation material sections from said sheet by means of a separating cut, said markings being defined by at least one arrangement selected from the group consisting of: ~~characterized in that~~

(a) at least some of said markings ~~with an essential portion of their section are arranged being defined~~ on said insulation material sheet with an orientation that is directed in difference to the non-perpendicular to a longitudinal ~~the long~~ axis of said insulation material sheet; and ~~and/or that at least a part of said markings distributed over said insulation material sheet is arranged on said insulation material sheet with an orientation directed in difference to the perpendicular to the long axis of said insulation material sheet and/or that said markings with respectively adjacent markings each are aligned such that the imaginative line between adjacent markings results in a straight line in oblique direction to the long axis of said insulation material sheet and/or that~~

(b) said markings are formed being defined ~~by plane formations, geometrical ones in particular and/or that at least a part of the markings is arranged crosswise to the longitudinal axis of the sheet.~~

-2- (Amended)

A rollable, mineral wool, insulation ~~Insulation material sheet which may be wound up to a roll, out of mineral wool for insulation of roofs, said insulation material sheet having~~ which is provided with markings distributed over a ~~the~~ length of said insulation material sheet, which facilitate cutting-off of insulation material sections from said sheet by means of a separating cut, ~~characterized in that~~ said markings are being formed by crosses, at least some of said crosses being several of which are arranged one beside the other with an interval on a perpendicular to the long longitudinal ~~long~~ axis of said insulation material sheet, and that said groups of markings are crosses being arranged with intervals over the long longitudinal axis ~~of said insulation material sheet.~~

-8- (Twice Amended)

Insulation material sheet as defined in claim 1, ~~characterized in that~~ wherein said markings are arranged in rows, each said row oriented with intervals transversely to the longitudinal axis of said insulation material sheet, and each said row having in a row and a plurality of rows is arranged over the longitudinal direction of said insulation material sheet with uniform longitudinal intervals between adjacent rows ~~or with a regularly repeating distance pattern with respect to one another.~~

-9- (Twice Amended)

Insulation material sheet as defined in claim 2, ~~characterized in that~~ wherein said markings are arranged in rows, each said row oriented with intervals transversely to the longitudinal axis of said insulation material sheet, and each said row having in a row and a plurality of rows is arranged over the longitudinal direction of said insulation material sheet with uniform longitudinal intervals between adjacent rows ~~or with a regularly repeating distance pattern with respect to one another.~~

-10- (Twice Amended)

Insulation material sheet as defined in claim 1, ~~characterized in that~~ wherein said markings ~~each is formed by~~ comprise a line directed in an oblique direction to the longitudinal axis of said insulation material sheet.

-11- (Twice Amended)

Insulation material sheet as defined in claim 2 ~~1~~, ~~characterized in that~~ wherein said markings ~~each is formed by~~ comprise a line directed in an oblique direction to the longitudinal axis of said insulation material sheet.

-12- (Twice Amended)

Insulation material sheet as defined in claim 8, ~~characterized in that~~ wherein said markings ~~each is formed by~~ comprise a line directed in an oblique direction to the longitudinal axis of said insulation material sheet.

-13- (Twice Amended)

Insulation material sheet as defined in claim 9, ~~characterized in that~~ wherein said markings ~~each is formed by~~ comprise a line directed in an oblique direction to the longitudinal axis of said insulation material sheet.

-14- (Twice Amended)

Insulation material sheet as defined in claim 1, ~~characterized in that~~ wherein said markings ~~is~~ are formed by geometrical patterns selected from the group consisting of, in particular trapezoids, squares, rectangles, triangles, and parallelograms or the like.

-15- (Twice Amended)

Insulation material sheet as defined in claim 2, ~~characterized in that~~ wherein said markings ~~is~~ are formed by geometrical patterns selected from the group consisting of, in particular trapezoids, squares, rectangles, triangles, and parallelograms or the like.

-16- (Twice Amended)

Insulation material sheet as defined in claim 8, ~~characterized in that~~ wherein said markings ~~is~~ are formed by geometrical patterns selected from the group consisting of, in particular trapezoids, squares, rectangles, triangles, and parallelograms or the like.

-17- (Twice Amended)

Insulation material sheet as defined in claim 9, ~~characterized in that~~ wherein said markings ~~is~~ are formed by geometrical patterns selected from the group consisting of, in particular trapezoids, squares, rectangles, triangles, and parallelograms or the like.

-18- (Twice Amended)

Insulation material sheet as defined in claim 1, ~~characterized in that~~ wherein said markings are formed by dot-shaped formations.

-19- (Twice Amended)

Insulation material sheet as defined in claim 2, ~~characterized in that~~ wherein said markings are formed by dot-shaped formations.

-20- (Twice Amended)

Insulation material sheet as defined in claim 8, ~~characterized in that~~ wherein said markings are formed by dot-shaped formations.

-21- (Twice Amended)

Insulation material sheet as defined in claim 9, ~~characterized in that~~ wherein said markings are formed by dot-shaped formations.

-22- (Twice Amended)

Insulation material sheet as defined in claim 1, ~~characterized in that~~ wherein said markings are formed by lines ~~arranged obliquely to the long axis and/or in direction of the long axis and/or normally to the long axis~~ or geometrical patterns, said geometrical patterns being which are arranged in a transverse direction to the ~~long~~ longitudinal axis with intervals, ~~wherein the~~ and said geometrical patterns being formed by several markings that are regularly repeated in the direction of the ~~long~~ longitudinal axis.

-23- (Twice Amended)

Insulation material sheet as defined in claim 2, ~~characterized in that~~ wherein said markings are formed by lines ~~arranged obliquely to the long axis and/or in direction of the long axis and/or normally to the long axis~~ or geometrical patterns, said geometrical patterns being which are arranged in a transverse direction to the ~~long~~ longitudinal axis with intervals, ~~wherein the~~ and said geometrical patterns being formed by several markings that are regularly repeated in the direction of the ~~long~~ longitudinal axis.

-24- (Twice Amended)

Insulation material sheet as defined in claim 8, ~~characterized in that~~ wherein said markings are formed by lines ~~arranged obliquely to the long axis and/or in direction of the long axis and/or normally to the long axis~~ or geometrical patterns, said geometrical patterns being which are arranged in a transverse direction to the ~~long~~ longitudinal axis with intervals, ~~wherein the~~ and said geometrical patterns being formed by several markings that are regularly repeated in the direction of the ~~long~~ longitudinal axis.

-25- (Twice Amended)

Insulation material sheet as defined in claim 9, ~~characterized in that~~ wherein said markings are formed by lines ~~arranged obliquely to the long axis and/or in direction of the long axis and/or normally to the long axis~~ or geometrical patterns, said geometrical patterns being ~~which are~~ arranged in a transverse direction to the ~~long~~ longitudinal axis with intervals, ~~wherein the~~ and said geometrical patterns being formed by several markings that are regularly repeated in the direction of the ~~long~~ longitudinal axis.

FULL TEXT OF CASES (USPQ FIRST SERIES)

In re Miller, 164 USPQ 46 (CCPA 1969)

In re Miller

(CCPA)

164 USPQ 46

Decided Dec. 18, 1969

No. 8212

U.S. Court of Customs and Patent Appeals

Headnotes

PATENTS

1. Patentability - Subject matter for patent monopoly - Printed matter (§ 51.611)

Fact that printed matter by itself is not patentable subject matter, because nonstatutory, is no reason for ignoring it when claim is directed to combination.

Particular patents-Measuring Device

Miller, Measuring Device, claims 10 to 13 of application allowed.

Case History and Disposition:

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Appeal from Board of Appeals of the Patent Office.

Application for patent of Paul J. Miller, Serial No. 332,183, filed Dec. 20, 1963; Patent Office Group 285. From decision rejecting claims 10 to 13, applicant appeals. Reversed.

Attorneys:

Thomson & Schovee (John R. Schovee of counsel) both of Rochester, N. Y., for appellant.

Joseph Schimmel (Fred W. Sherling of counsel) for Commissioner of Patents.

Judge:

Before Rich, Acting Chief Judge, Matthews, Judge, sitting by designation, and Almond, Baldwin, and Lane, Associate Judges.

Opinion Text

Opinion By:

Rich, Acting Chief Judge.

This appeal is from the decision of the Patent Office Board of Appeals affirming the rejection of claims 10-13 of application serial No. 332,183, filed December 20, 1963, entitled "Measuring Device." Claims 9 and 14 were allowed in the Examiner's Answer.

The disclosed invention has for its purpose the solving of the domestic culinary problem of measuring the ingredients from a cookbook recipe in something other than the full recipe. While it contemplates measuring out multiple recipes, for example a double recipe, it particularly contemplates solving the greater difficulty of measuring out fractional recipes, such as $1/3$ or $1/2$. Normally this would involve the calculation of such baffling measurements as $1/3$ or $2/3$ of a cup, which, it is assumed, would tax the mathematical abilities of many housewives. From the utility point of view, we will assume this to be so in the absence of any assertion by the Patent Office to the contrary. Indeed, we think we can judicially notice the fact.

While the rejection cites no references to establish prior art, we nevertheless have to take prior art into consideration because it is assumed on both sides that common kitchen measuring cups and spoons are well known. This is recognized by the specification which states:

The required measurements of ingredients of most recipes are in terms of the common fractions of cups, tablespoons, etc., appearing on commercially available measuring cups and spoons.

The problem faced by the housewife or other cook is stated in the specification as follows:

However, when a housewife wants to make a fractional recipe, few of the computed fractional measurements appear as graduations on commercially available measuring devices. Hence, even if the housewife is able to make the fractional or proportional computations or has a conversion chart, many of the computed measurements are only fractions of the graduations on the housewife's measuring devices. For example, even though a housewife is able to compute that $1/3$ of $2/3$ cup is $2/9$ cup, and $1/2$ of $3/4$ is $3/8$ cup, she will not find such fractional cup graduations on her measuring cup.

We do not doubt that this presents a practical problem for many housewives, and for many cooks who are not housewives.

Appellant has provided equipment—

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articles of manufacture, under the statute, 35 U.S.C. 101-adapted to ameliorate the mental strain on cooks. The invention takes different forms. In the language of the claims there is, broadly, a measuring receptacle; more particularly, there is a spoon or a cupshaped receptacle. The first element of each claim is the *receptacle*.

The second element of each claim is, as stated in the specification:

* * * quantity measuring *indicia* on the receptacle of a selected ratio or proportion to, but different from the actual quantity measured in the receptacle by the *indicia*. [Emphasis ours.]

To explain, the indicia on a cup or spoon may indicate, for example, that it is measuring one cup or one tablespoon but the actual volumetric content of the receptacle, reading the indicia, in whatever form they may take, against its contents, is something different, say 1/3 cup or 1/3 tablespoon. In other words, the indicia, if taken literally and by themselves, are false.

The third element in each appealed claim is a *legend*, on the receptacle or attached to it, specifying the ratio or proportion of a full recipe which the above-mentioned false indicia actually measure in the receptacle. We do not use the term "false" in any derogatory sense; actually the false designation, coupled with the legend, serves as a computing or mathematical conversion device. A cook following a cookbook recipe and desirous of making 1/3 of the recipe merely selects measuring devices bearing the "1/3 recipe" legend, follows the recipe using these devices, and measures out what it calls for by following the indicia on the measuring receptacles. They perform the calculations automatically and require no further thought.

Figs. 2 and 3 from the drawings are illustrative:

FIG. 2

Tabular, graphic, or textual material set at this point is not available. Please consult hard copy or call BNA PLUS at 1-800-452-7773 or 202-452-4323.

FIG. 3

Tabular, graphic, or textual material set at this point is not available. Please consult hard copy or call BNA PLUS at 1-800-452-7773 or 202-452-4323.

Fig. 2 shows a measuring cup having the legend "ONE HALF RECIPE." The indicia on the side wall reading upward from 1/4 cup to 2 cups indicate the points at which the cup's volume is actually 1/2 of what the indicia state, i.e., filled to "2 CUPS" the actual volume is one cup. Similarly in Fig. 3, the familiar set of measuring spoons has been altered in accordance with the invention so that, for example, the spoon 21 to the left bearing the indicia "1 TEASPOON" on its handle actually measures, in accordance with the legend 25, a half teaspoon.

Claim 10 is illustrative of the rejected claims (emphasis ours):

10. A measuring device comprising: a *spoon* for measuring ingredients; and volume measuring *indicia* defined in a normal volumetric unit on said spoon of a selected ratio to but indicating a volume different from the actual volume of ingredients being added to and measured in said spoon

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by said indicia, and a *legend* attached to said spoon specifying said ratio.

In his Answer, the examiner stated that no references were relied on. (Up to that point, it appears that his rejections had been based entirely on prior-art patents.) The rejection by the examiner which the board affirmed, and which is before us for review, was as follows:

* Claims 10-13, which recite the combination of a measuring vessel having printed thereon (1) *indicia* specifying a given volume and (2) a *legend* specifying the ratio of this given volume to the actual volume that the vessel is capable of holding, are rejected as defining over any ordinary measuring vessel only by the addition of unpatentable printed matter. In this instance the claimed indicia and legend, being merely placed on the claimed structure in any desired location and manner, do not produce the required cooperative structural relationship necessary before the printed matter can be given patentable weight. It is believed to be well settled that patentable weight can be given printed matter only when a novel relationship exists between said printed matter and the claimed structure.

No authorities were cited by the examiner in his Answer, to support what he said was well-settled law or otherwise. We consider the examiner's rejection unsound logically, if not self-defeating, and we reverse.

It is noted, first, that the examiner recognizes the invention of the appealed claims for what it is, namely, a combination of three elements constituting a "manufacture" 35 U.S.C. 101. There is no assertion that the *claimed* invention is non-statutory subject matter.

It is noted, next, that the rejection appears to be based either on 35 U.S.C. 103 or 112 by reason of the statement that it "[defines] over any ordinary measuring vessel only" in a certain respect. The statutory basis is not specified. Thus an "ordinary measuring vessel" is assumed prior art, notwithstanding no references are relied on. The respect in which the appealed claims admittedly *do* "define over" such prior art is in their recitations of the "indicia" and the "legend," two of the three elements of each rejected claim, as clearly recognized by the examiner. While the examiner was quite willing to consider such elements as proper parts of the "structure" and in "a definite structural relationship with the wall of the measuring vessel" when, as in the allowed claims, they were required to be in "a specific location," he would give them no weight at all, apparently, when the location was not specified or necessarily restricted. He said, and we repeat (our emphasis):

In this instance the claimed indicia and legend, being *merely placed on* the claimed structure [meaning the vessel] *in any desired location and manner*, do not produce the required co-operative *structural* relationship necessary before the printed matter can be given patentable weight.

We do not see why this is so and the examiner does not tell us. ¹We do not see that "structural" relationship-whatever that means-is required to obtain the practical, problem-solving results of appellant's invention. In fact, it is apparent that such restrictions as the examiner insists on would deprive the Fig. 3 embodiment of the invention of protection. Further, as the solicitor pointed out at the argument, if all of the indicia of the Fig. 2 cup except the "ONE HALF RECIPE" legend and the "2 CUPS" indicia were removed from Fig. 2, one would then have the subject matter of the appealed claims; yet, that subject matter would not be protected by the allowed claims.

It seems to us that what is significant here is not structural but *functional* relationship and that it is of no moment with respect to measuring devices such as the spoons, where the volume is measured *by filling the receptacle to its brim*, which could also be true of a cup, in what position on or relation to the receptacle the indicia and legend are placed. Claims 10-12 call for the indicia being "on" and the legend being "attached to" the receptacle. Claim 13 specifies that the indicia and the legend are both "on" the "cup-shaped receptacle." This specifies the required functional relationship to carry out appellant's invention and clearly defines the disclosed invention as required by section 112.

[1] As for the examiner's characterization of the indicia and legend as "unpatentable printed matter," we note that the examiner himself recognizes the fact that

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printed matter, in an article of manufacture claim, *can* be given "patentable weight." He did so in allowing claims. His characterization of printed matter as "unpatentable" is beside the point; no attempt is here being made to patent printed matter as such. The fact that printed matter *by itself* is not patentable subject matter, because non-statutory, is no reason for ignoring it when the claim is directed to a combination. Here there is a new and unobvious functional relationship between a measuring *receptacle*, volumetric *indicia* thereon indicating volume in a certain ratio to actual volume, and a *legend* indicating the ratio, and in our judgment the appealed claims properly define this relationship. No question as to the novelty or unobviousness of the invention as claimed is before us except with relation to an "ordinary measuring vessel." By implication, the examiner admits that no such combination exists in or would be obvious from an ordinary measuring vessel and we therefore deem sections 102 and 103 to be satisfied.

The solicitor seeks some support for sustaining the rejection in *In re Sterling*, 21 CCPA 1134, 70 F.2d 910, 21 USPQ 519, but we find none therein. As we pointed out in *In re Jones*, 54 CCPA 1218, 373 F.2d 1007, 153 USPQ 77, also cited by the solicitor, the *Sterling* claims were held unpatentable over prior art references. The solicitor seems to urge that we *ignore* the claim limitations to the indicia and legends because they are printed and because printed matter is not patentable subject matter by itself. For reasons indicated above, we reject that argument.

The decision of the board affirming the rejection of claims 10-13 is *reversed*.

Footnotes

Footnote 1. The examiner did not care, apparently, where the *legend* was for in allowed claims 9 and 14 the legends were merely recited as "on said receptacle." But he did think the volumetric *indicia*, such as the "2 CUPS" scale on Fig. 2, *supra*, should have a *specific* relation to the receptacle other than merely being "on" it.

- End of Case -